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Patent Docket P1872R1

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Venita I. DeAlmeida et al. Serial No.: 10/077,065 Filed: 15 February 2002 For: TREATMENT INVOLVING DKK-1 OR ANTAGONISTS THEREOF	Group Art Unit: 3736 Examiner: Unassigned CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231 on July 22 2002 <i>Emily Dutra</i> Emily Dutra
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INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

Applicants submit herewith patents, publications or other information (attached hereto and listed on the attached revised Form PTO-1449) of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

This Information Disclosure Statement is filed in accordance with the provisions of:

☒ **37 CFR §1.97(b)**

- within three months of the filing date of the application other than a continued prosecution application under 37 CFR §1.53(d); or
- within three months of the date of entry of the national stage of a PCT application as set forth in 37 CFR §1.491, or
- before the mailing of the first Office action on the merits; or
- before the mailing of the first Office action after the filing of a request for a continued examination under 37 CFR §1.114.

☐ **37 CFR §1.97(c)**

- by the applicant after the period specified in 37 CFR §1.97(b), but prior to the mailing date of any of a final action under 37 CFR §1.113, or a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application, and is accompanied by either the fee set forth in 37 CFR §1.17(p) or a statement as specified in 37 CFR §1.97(e), as checked below.

☐ **37 CFR §1.97(d)**

- after the period specified in CFR §1.97(c), and is accompanied by the fee set forth in 37 CFR §1.17(p) and a statement as specified in 37 CFR §1.97(e), as checked below.

[If either of boxes 37 CFR §1.97(c) or 37 CFR §1.97(d) is checked above, the following statement under 37 CFR

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§1.97(e) may need to be completed.]

- ☐ **37 CFR §1.97(e)** Each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- ☐ **37 CFR §1.704(d)** Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and the communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of this information disclosure statement. Therefore, in accordance with the provisions of 37 CFR §1.704(d), the filing of this information disclosure statement will not be considered a failure to engage in reasonable efforts to conclude prosecution under 37 CFR §1.704.
- ☐ The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 07-0630 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement under 37 CFR §1.17(p). Any deficiency or overpayment should be charged or credited to this deposit account.

A list of the patent(s) or publication(s) is set forth on the attached revised Form PTO-1449 (Modified).

A copy of the items on PTO-1449 is supplied herewith.

☐ BLAST results enclosed:

The undersigned also wishes to bring to the attention of the Examiner BLAST results of computerized alignments of the against sequences contained in the nucleotide and protein databases. The BLAST results are provided in paper form and are identified as reference "BLAST Results A-1- A-()" (nucleotide) and "BLAST Results B-1 - B-()" (protein) on the PTO Form 1449. Applicant requests that these references also be considered and that the Form 1449 be initialed to indicate the Examiner's consideration of the references.

A concise explanation of relevance of the items listed on PTO-1449 is:

☒ not given

☐ given for each listed item

☐ given for only non-English language listed item(s) [Required]

☐ in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references.

In accordance with 37 CFR §1.97(g), the filing of this information disclosure statement shall not be construed as a representation that a search has been made.

In accordance with 37 CFR §1.97(h), the filing of this information disclosure statement shall not be construed to

Serial No.: 10/077,065
Filed: 15 February 2002

Page 3

be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b).

In the event that the Office determines a fee to be due where none is specifically authorized in this paper, the U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 07-0630 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement under 37 CFR §1.17(p).

Respectfully submitted,
GENENTECH, INC.

Date: July 19, 2002

By: Janet E. Hasak
Janet E. Hasak
Reg. No. 28,616
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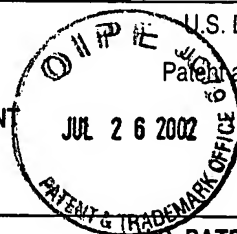
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Serial No.

10/077,065

LIST OF DISCLOSURES CITED BY APPLICANT

(Use several sheets if necessary)



Applicant

DeAlmeida and Stewart

Filing Date

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U.S. PATENT DOCUMENTS

Examiner Initials	Document Number	Date	Name	Class	Subclass	Filing Date
	1 6,187,991	13.02.01	Soeller et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initials	Document Number	Date	Country	Class	Subclass	Translation Yes No
	2 WO 00/18914	06.04.00	PCT			
	3 WO 00/52047	08.09.00	PCT			
	4 WO 98/46755	22.10.98	PCT			
	5 WO 99/46281	16.09.99	PCT			

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

6	Aikin et al., "Phosphatidylinositol 3-Kinase Signaling to Akt Mediates Survival in Isolated Canine Islets of Langerhans." <u>Biochem. & Biophys. Res. Comm.</u> 277:455-461 (2000)
7	Anai et al., "Altered Expression Levels and Impaired Steps in the Pathway to Phosphatidylinositol 3-Kinase Activation via Insulin Receptor Substrates 1 and 2 in Zucker Fatty Rats." <u>Diabetes</u> . 47:13-23 (Jan 1998)
8	Andreasson et al., "Decreased Insulin-Stimulated 3-O-Methylglucose Transport in In Vitro Incubated Muscle Strips from Type II Diabetic Subjects." <u>Acta Physiol. Scand.</u> 142:255-260 (1991)
9	Andreelli et al., "Defective Regulation of Phosphatidylinositol-3-Kinase Gene Expression in Skeletal Muscle and Adipose Tissue of Non-Insulin-Dependent Diabetes Mellitus Patients." <u>Diabetologia</u> . 42:358-364 (1999)
10	Andreelli et al., "Regulation of Gene Expression During Severe Caloric Restriction: Lack of Induction of p85alpha Phosphatidylinositol 3-Kinase mRNA in Skeletal Muscle of Patients with Type II (Non-Insulin-Dependent) Diabetes Mellitus." <u>Diabetologia</u> . 43:356-363 (2000)
11	Arner et al., "Defective Insulin Receptor Tyrosine Kinase in Human Skeletal Muscle in Obesity and Type 2 (Non-Insulin-Dependent) Diabetes Mellitus." <u>Diabetologia</u> . 30:437-440 (1987)
12	Avignon et al., "Chronic Activation of Protein Kinase C in Soleus Muscles and Other Tissues of Insulin-Resistant Type II Diabetic Goto-Kakizaki (GK), Obese/Aged, and Obese/Zucker Rats." <u>Diabetes</u> . 45:1396-1404 (Oct 1996)
13	Bafico et al., "Novel Mechanism of Wnt Signalling Inhibition Mediated by Dickkopf-1 Interaction with LRP6/Arrow." <u>Nat. Cell. Bio.</u> 3:683-686 (Jul 2001)
14	Barroso et al., "Dominant Negative Mutations in Human PPARγ Associated with Severe Insulin Resistance, Diabetes Mellitus and Hypertension." <u>Nature</u> . 402:880-883 (Dec 1999)
15	Barthel et al., "A Constitutively Active Version of the Ser/Thr Kinase Akt Induces Production of the ob Gene Product, Leptin, in 3T3-L1 Adipocytes." <u>Endocrinology</u> . 138(8):3559-3562 (1997)
16	Bell, Graeme., "Molecular Defects in Diabetes Mellitus." <u>Diabetes</u> . (Lilly Lecture 1990) 40:413-422 (Apr 1991)
17	Berger et al., "Decreased Expression of the Insulin-Responsive Glucose Transporter in Diabetes and Fasting." <u>Nature</u> . 340:70-72 (Jul 1989)
18	Bernal-Mizrachi et al., "Isletβ Cell Expression of Constitutively Active Akt1/PKBα Induces Striking Hypertrophy, Hyperplasia, and Hyperinsulinemia." <u>J. Clin. Invest.</u> 108(11):1631-1638 (Dec 2001)
19	Bjornholm et al., "Insulin Receptor Substrate-1 Phosphorylation and Phosphatidylinositol 3-Kinase Activity in Skeletal Muscle From NIDDM Subjects After In Vivo Insulin Stimulation." <u>Diabetes</u> . 46:524-527 (Mar 1997)

Examiner

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Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form on communication to applicant.

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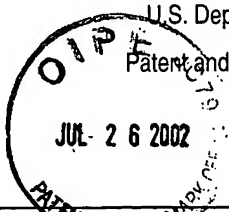
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FORM PTO-1449		U.S. Dept. of Commerce Patent and Trademark Office		Atty Docket No. P1872R1	Serial No. 10/077,065
LIST OF DISCLOSURES CITED BY APPLICANT (Use several sheets if necessary)				Applicant DeAlmeida and Stewart	
				Filing Date 15 Feb 2002	Group 3736
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)					
20	Bodine et al., "Akt/mTOR Pathway is a Crucial Regulator of Skeletal Muscle Hypertrophy and Can Prevent Muscle Atrophy In Vivo." <u>Nature Cell Biology</u> . 3:1014-1019 (Nov 2001)				
21	Bonadonna et al., "Roles of Glucose Transport and Glucose Phosphorylation in Muscle Insulin Resistance of NIDDM." <u>Diabetes</u> . 45:915-925 (Jul 1996)				
22	Borello et al., "Transplacental Delivery of the Wnt Antagonist Frzbl Inhibits Development of Caudal Paraxial Mesoderm and Skeletal Myogenesis in Mouse Embryos." <u>Development</u> . 126:4247-4255 (1999)				
23	Carvalho et al., "Impaired Phosphorylation and Insulin-Stimulated Translocation to the Plasma Membrane of Protein Kinase B/Akt in Adipocytes from Type II Diabetic Subjects." <u>Diabetologia</u> . 43:1107-1115 (2000)				
24	Chalfant et al., "Protein Kinase C θ Expression is Increased Upon Differentiation of Human Skeletal Muscle Cells: Dysregulation in Type 2 Diabetic Patients and a Possible Role for Protein Kinase C θ in Insulin-Stimulated Glycogen Synthase Activity." <u>Endocrinology</u> . 141:2373-2378 (2000)				
25	Charron and Kahn., "Divergent Molecular Mechanisms for Insulin-Resistant Glucose Transport in Muscle and Adipose Cells In Vivo." <u>J. Bio. Chem.</u> 265(14):7994-8000 (May 1990)				
26	Chen et al., "Growth Retardation and Increased Apoptosis in Mice with Homozygous Disruption of the akt1 Gene." <u>Genes and Development</u> . 15:2203-2208 (2001)				
27	Cho et al., "Insulin Resistance and a Diabetes Mellitus-Like Syndrome in Mice Lacking the Protein Kinase Akt2 (PKB β)." <u>Science</u> . 292:1728-1731 (Jun 2001)				
28	Cook et al., "Wingless Inactivates Glycogen Synthase Kinase-3 Via an Intracellular Signalling Pathway Which Involves a Protein Kinase C." <u>EMBO Journal</u> . 15(17):4526-4536 (1996)				
29	Cossu and Borello., "Wnt Signaling and the Activation of Myogenesis in Mammals." <u>EMBO Journal</u> . 18(24):6867-6872 (1999)				
30	Dadke et al., "Elevated Expression and Activity of Protein-Tyrosine Phosphatase 1B in Skeletal Muscle of Insulin-Resistant Type II Diabetic Goto-Kakizaki Rats." <u>Biochem. & Biophys. Res. Comm.</u> 274:583-589 (2000)				
31	Del Aguila et al., "Muscle Damage Impairs Insulin Stimulation of IRS-1, PI 3-Kinase, and Akt-Kinase in Human Skeletal Muscle." <u>Am. J. Physiol. Endocrinol. Metab.</u> 279:E206-E212 (2000)				
32	Derave et al., "Muscle Glycogen Content Affects Insulin-Stimulated Glucose Transport and Protein Kinase B Activity." <u>Am. J. Physiol. Endocrinol. Metab.</u> 279:E947-E955 (2000)				
33	Desbois-Mouthon et al., "Insulin and IGF-1 Stimulate the β -Catenin Pathway Through Two Signalling Cascades Involving GSK-3 β Inhibition and Ras Activation." <u>Oncogene</u> . 20:252-259 (2001)				
34	Ding et al., "Differential Regulation of Glycogen Synthase Kinase 3 β by Insulin and Wnt Signaling." <u>J. Bio. Chem.</u> 275(42):32475-32481 (Oct 2000)				
35	Dohm et al., "Decreased Expression of Glucose Transporter in Muscle from Insulin-Resistant Patients." <u>Am. J. Physiol.</u> 260:E459-E463 (1991)				
36	Eldar-Finkelman et al., "Increased Glycogen Synthase Kinase-3 Activity in Diabetes- and Obesity-Prone C57BL/6J Mice." <u>Diabetes</u> . 48:1-5 (Aug 1999)				
37	Federici et al., "The Common Arg ⁹⁷⁴ Polymorphism in Insulin Receptor Substrate-1 Causes Apoptosis of Human Pancreatic Islets." <u>FASEB Journal</u> . 15:22-24 (Jan 2001)				
38	Fedi et al., "Isolation and Biochemical Characterization of the Human Dkk-1 Homologue, A Novel Inhibitor of Mammalian Wnt Signaling." <u>J. Bio. Chem.</u> 274(27):19465-19472 (Jul 1999)				
39	Folli et al., "Insulin Receptor/IRS-1/PI 3-Kinase Signaling System in Insulin-Resistant Obese Subjects." <u>Acta Diabetol.</u> 33:185-192 (1996)				
Examiner		Date Considered			
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 608.02, and if not in conformance and not considered. Include copy of this form with next communication to applicant.		TECH CENTER 1600/2900			

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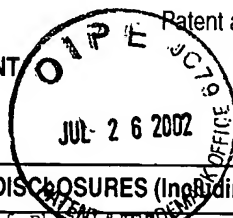
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Applicant

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Filing Date

15 Feb 2002

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3736

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

- 40 Folli et al., "Regulation of Phosphatidylinositol 3-Kinase Activity in Liver and Muscle of Animal Models of Insulin-Resistant and Insulin-Deficient Diabetes Mellitus." J. Clin. Invest. 92:1737-1794 (Oct 1993)
- 41 Forman et al., "15-Deoxy- $\Delta^{12,14}$ -Prostaglandin J_2 is a Ligand for the Adipocyte Determination Factor PPAR γ " Cell 83:803-812 (Dec 1995)
- 42 Friedman et al., "Restoration of Insulin Responsiveness in Skeletal Muscle of Morbidly Obese Patients After Weight Loss: Effect on Muscle Glucose Transport and Glucose Transporter GLUT4." J. Clin. Invest. 89:701-705 (Feb 1992)
- 43 Fukumoto et al., "Akt Participation in the Wnt Signaling Pathway Through Dishevelled." J. Bio. Chem. 276(20):17479-17483 (May 2001)
- 44 Fuller et al., "Coronary-Heart-Disease Risk and Impaired Glucose Tolerance: The Whitehall Study." Lancet 1:1373-1379 (1980)
- 45 Garvey et al., "Evidence for Defects in the Trafficking and Translocation of GLUT4 Glucose Transporters in Skeletal Muscle as a Cause of Human Insulin Resistance." J. Clin. Invest. 101(11):2377-2386 (Jun 1998)
- 46 Garvey et al., "Gene Expression of GLUT4 in Skeletal Muscle From Insulin-Resistant Patients With Obesity, IGT, GDM, and NIDDM." Diabetes 41:465-475 (Apr 1992)
- 47 Garvey et al., "Pretranslational Suppression of an Insulin-Responsive Glucose Transporter in Rats with Diabetes Mellitus." Science 245:60-63 (Jul 1989)
- 48 Glinka et al., "Dickkopf-1 is a Member of a New Family of Secreted Proteins and Functions in Head Induction." Nature 391(6665):357-362 (Jan 22, 1998)
- 49 Goodyear et al., "Insulin Receptor Phosphorylation, Insulin Receptor Substrate Phosphorylation, and Phosphatidylinositol 3-Kinase Activity are Decreased in Intact Skeletal Muscle Samples from Obese Subjects." J. Clin. Invest. 95:2195-2204 (May 1995)
- 50 Grotewold et al., "Expression Pattern of Dkk-1 During Mouse Limb Development." Mech. Dev. 89:151-153 (1999)
- 51 Hallakou et al., "Pioglitazone Induces In Vivo Adipocyte Differentiation in the Obese Zucker fa/fa Rat." Diabetes 46:1393-1399 (Sep 1997)
- 52 Handberg et al., "Expression of Insulin Regulatable Glucose Transporters in Skeletal Muscle from Type 2 (Non-Insulin-Dependent) Diabetic Patients." Diabetologia 33:625-627 (1990)
- 53 Haring., "The Insulin Receptor: Signalling Mechanism and Contribution to the Pathogenesis of Insulin Resistance." Diabetologia 34:848-861 (1991)
- 54 Heydrick et al., "Defect in Skeletal Muscle Phosphatidylinositol-3-Kinase in Obese Insulin-Resistant Mice." J. Clin. Invest. 91:1358-1366 (Apr 1993)
- 55 Heydrick et al., "Early Alteration of Insulin Stimulation of PI 3-Kinase in Muscle and Adipocyte from Gold Thioglucose Obese Mice." Am. J. Physiol. 268:E604-E612 (1995)
- 56 Holst et al., "Protein Kinase B is Expressed in Pancreatic β Cells and Activated Upon Stimulation with Insulin-Like Growth Factor I." Biochem. & Biophys. Res. Comm. 250:181-186 (1998)
- 57 Hu et al., "Transdifferentiation of Myoblasts by the Adipogenic Transcription Factors PPAR γ and C/EBP α ." Proc. Natl. Acad. Sci. USA 92:9856-9860 (Oct 1995)
- 58 Hulsken and Behrens., "The Wnt Signalling Pathway." J. Cell. Sci. 113:3545 (2000)
- 59 Imazu et al., "Hyperinsulinemia as a Risk Factor for Restenosis After Coronary Balloon Angioplasty." Jpn. Circ. J. 65:947-952 (2001)

Examiner

SEP 17 2002

Date Considered

SEP 13 2002

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Group

3736

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(Use several sheets if necessary)

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)

- 60 Imazu et al., "Hyperinsulinemia for the Development of Hypertension: Data from the Hawaii-Los Angeles-Hiroshima Study." Hypertens Res. 24:531-536 (2001)
- 61 Kahn et al., "Differential Regulation of Two Glucose Transporters in Adipose Cells from Diabetic and Insulin-Treated Diabetic Rats." J. Clin. Invest. 84:404-411 (1989)
- 62 Kario et al., "Hyperinsulinemia and Hemostatic Abnormalities are Associated with Silent Lacunar Cerebral Infarcts in Elderly Hypertensive Subjects." J. Am. Coll. Cardiol. 37(3):871-877 (Mar 2001)
- 63 Kim et al., "Normal Insulin-Dependent Activation of Akt/Protein Kinase B, with Diminished Activation of Phosphoinositide 3-Kinase, in Muscle in Type 2 Diabetes." J. Clin. Invest. 104:733-741 (1999)
- 64 Krook et al., "Characterization of Signal Transduction and Glucose Transport in Skeletal Muscle From Type 2 Diabetic Patients." Diabetes. 49:284-292 (Feb 2000)
- 65 Krook et al., "Insulin-Stimulated Akt Kinase Activity is Reduced in Skeletal Muscle from NIDDM Subjects." Diabetes. 47:1281-1286 (1998)
- 66 Krupnik et al., "Functional and Structural Diversity of the Human Dickkopf Gene Family." Gene. 238:301-313 (1999)
- 67 Kupriyanova and Kandror., "Akt-2 Binds to Glut4-Containing Vesicles and Phosphorylates Their Component Proteins in Response to Insulin." J. Bio. Chem. 274(3):1458-1464 (Jan 1999)
- 68 Kurowski et al., "Hyperglycemia Inhibits Insulin Activation of Akt/Protein Kinase B but Not Phosphatidylinositol 3-Kinase in Rat Skeletal Muscle." Diabetes. 48:1-6 (Mar 1999)
- 69 Loviscach et al., "Distribution of Peroxisome Proliferator-Activated Receptors (PPARs) in Human Skeletal Muscle and Adipose Tissue: Relation to Insulin Action." Diabetologia. 43:304-311 (2000)
- 70 Maegawa et al., "Impaired Autophosphorylation of Insulin Receptors from Abdominal Skeletal Muscles in Nonobese Subjects with NIDDM." Diabetes. 40:815-819 (Jul 1991)
- 71 Magun et al., "Expression of a Constitutively Activated Form of Protein Kinase B (c-Akt) in 3T3-L1 Preadipose Cells Causes Spontaneous Differentiation." Endocrinology. 137(8):3590-3593 (1996)
- 72 Mao et al., "LDL-Receptor-Related Protein 6 is a Receptor for Dickkopf Proteins." Nature. 411:321-325 (May 2001)
- 73 Mao et al., "Low-Density Lipoprotein Receptor-Related Protein-5 Binds to Axin and Regulates the Canonical Wnt Signaling Pathway." Mol. Cell. 7:801-809 (Apr 2001)
- 74 Monaghan et al., "Dickkopf Genes are Co-ordinately Expressed in Mesodermal Lineages." Mech. Dev. 87:45-56 (1999)
- 75 Nawano et al., "Hyperglycemia Impairs the Insulin Signaling Step Between PI 3-Kinase and Akt/PKB Activations in ZDF Rat Liver." Biochem. & Biophys. Res. Comm. 266:252-256 (1999)
- 76 Nikoulina et al., "Potential Role of Glycogen Synthase Kinase-3 in Skeletal Muscle Insulin Resistance of Type 2 Diabetes." Diabetes. 49:263-271 (2000)
- 77 Olefsky and Molina., "Insulin Resistance in Man." Diabetes Mellitus., Rifkin and Porte, eds., 4th edition, New York:Elsevier Science Publishing Co., Inc., Chapter 8, pps. 121-153 (1990)
- 78 Olefsky and Saltiel., "PPAR γ and the Treatment of Insulin Resistance." Trends Endo. Metabolism. 11(9):362-368 (2000)
- 79 Paz et al., "Phosphorylation of Insulin Receptor Substrate-1 (IRS-1) by Protein Kinase B Positively Regulates IRS-1 Function." J. Bio. Chem. 274(40):28816-28822 (1999)

Examiner

RECEIVED

Date Considered

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(Use several sheets if necessary)

Applicant

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15 Feb 2002

Group

3736

OTHER DISCLOSURES (including Author, Title, Date, Pertinent Pages, etc.)

- 80 Pedersen et al., "Evidence Against Altered Expression of GLUT1 or GLUT4 in Skeletal Muscle of Patients with Obesity or NIDDM." Diabetes. 39:865-870 (Jul 1990)
- 81 Peifer and Polakis., "Wnt Signaling in Oncogenesis and Embryogenesis- A Look Outside the Nucleus." Science. 287:1606-1609 (2000)
- 82 Pinson et al., "An LDL-Receptor-Related Protein Mediates Wnt Signalling in Mice." Nature. 407:535-538 (Sep 2000)
- 83 Piwien-Pilipuk et al., "Growth Hormone Regulates Phosphorylation and Function of COAT/Enhancer-Binding Protein β by Modulating Akt and Glycogen Synthase Kinase-3." J. Bio. Chem. 276:19663-19671 (Jun 2001)
- 84 Ridgeway et al., "Wnt Signaling Regulates the Function of MyoD and Myogenin." J. Bio. Chem. 275:32398-32405 (Oct 2000)
- 85 Rissanen et al., "Risk of Disability and Mortality Due to Overweight in a Finnish Population" Br. Med. J. 301:835-837 (1990)
- 86 Ristow et al., "Obesity Associated with a Mutation in a Genetic Regulator of Adipocyte Differentiation." New England J. of Medicine 339(14):953-959 (Oct 1998)
- 87 Roessler et al., "The Genomic Structure, Chromosome Location, and Analysis of the Human DKK1 Head Inducer Gene as a Candidate for Holoprosencephaly." Cytogenet. Cell Genet. 89:220-224 (2000)
- 88 Rommel et al., "Mediation of IGF-1-Induced Skeletal Myotube Hypertrophy by PI(3)K/Akt/mTOR and PI(3)K/Akt/GSK3 Pathways." Nature Cell Biology. 3:1009-1013 (Nov 2001)
- 89 Ross et al., "Glycogen Synthase Kinase 3 is an Insulin-Regulated C/EBP α Kinase." Molecular & Cellular Biology. 19(12):8433-8441 (Dec 1999)
- 90 Ross et al., "Inhibition of Adipogenesis by Wnt Signaling." Science. 289:950-953 (Aug 2000)
- 91 Saad et al., "Modulation of Insulin Receptor, Insulin Receptor Substrate-1, and Phosphatidylinositol 3-Kinase in Liver and Muscle of Dexamethasone-Treated Rats." J. Clin. Invest. 92:2065-2072 (Oct 1993)
- 92 Saad et al., "Regulation of Insulin Receptor Substrate-1 in Liver and Muscle of Animal Models of Insulin Resistance." J. Clin. Invest. 90:1839-1849 (Nov 1992)
- 93 Schmitz-Peiffer et al., "Alterations in the Expression and Cellular Localization of Protein Kinase C Isozymes ϵ and θ are Associated with Insulin Resistance in Skeletal Muscle of the High-Fat-Fed Rat." Diabetes. 46:169-178 (Feb 1997)
- Semenov et al., "Head Inducer Dickkopf-1 is a Ligand for Wnt Coreceptor LRP6." Current Biology. 11:951-961 (2001)
- Shao et al., "Decreased Akt Kinase Activity and Insulin Resistance in C57BL/KsJ-Lepr^{db/db} Mice." J. Endocrinol. 167:107-115 (2000)
- Sinha et al., "Adipose Tissue Glucose Transporters in NIDDM: Decreased Levels of Muscle/Fat Isoform." Diabetes. 40:472-477 (Apr 1991)
- 97 Sivitz et al., "Regulation of Glucose Transporter Messenger RNA in Insulin-Deficient States." Nature. 340:72-74 (Jul 1989)
- 98 Summers et al., "The Role of Glycogen Synthase Kinase 3 β in Insulin-Stimulated Glucose Metabolism." J. Bio. Chem. 274(25):17934-17940 (Jun 1999)
- 99 Tamai et al., "LDL-Receptor-Related Protein-1 is a Wnt Signal Transduction." Nature. 407:530-535 (Sep 2000)

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OTHER DISCLOSURES (including Author, Title, Date, Pertinent Pages, etc.)

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| 100 | Terauchi et al., "Increased Insulin Sensitivity and Hypoglycaemia in Mice Lacking the p85 α Subunit of Phosphoinositide 3-Kinase." <u>Nature Genetics</u> . 21:230-235 (Feb 1999) |
| 101 | Tian et al., "Post-Transcriptional Regulation of Xwnt-8 Expression is Required for Normal Myogenesis During Vertebrate Embryonic Development." <u>Development</u> . 126:3371-3380 (1999) |
| 102 | Toyofuku et al., "Wnt/Frizzled-2 Signaling Induces Aggregation and Adhesion Among Cardiac Myocytes by Increased Cadherin- β -Catenin Complex." <u>J. Cell. Bio.</u> 150:225-241 (Jul 2000) |
| 103 | Tremblay et al., "Defective Insulin-Induced GLUT4 Translocation in Skeletal Muscle of High Fat-Fed Rats is Associated with Alterations in Both Akt/Protein Kinase B and Atypical Protein Kinase C (ζ/λ) Activities." <u>Diabetes</u> . 50:1901-1910 (Aug 2001) |
| 104 | Trumper et al., "Integrative Mitogenic Role of Protein Kinase B/Akt in β -Cells." <u>Ann. NY Acad. Sci</u> 921:242-250 (2000) |
| 105 | Tsuda et al., "Hyperinsulinemia is a Determinant of Membrane Fluidity of Erythrocytes in Essential Hypertension." <u>Am. J. Hypertens.</u> 14:419-423 (2001) |
| 106 | Tuttle et al., "Regulation of Pancreatic β -Cell Growth and Survival by the Serine/Threonine Protein Kinase Akt1/PKB α ." <u>Nat. Med.</u> 7(10):1133-1137 (Oct 2001) |
| 107 | Vogt et al., "Subcellular Distribution of GLUT4 in the Skeletal Muscle of Lean Type 2 (Non-Insulin-Dependent) Diabetic Patients in the Basal State." <u>Diabetologia</u> . 35:456-463 (1992) |
| 108 | Wang et al., "Protein Kinase B/Akt Participates in GLUT4 Translocation by Insulin in L6 Myoblasts." <u>Mol. Cell. Bio.</u> 19(6):4008-4018 (Jun 1999) |
| 109 | Wehrli et al., "Arrow Encodes an LDL-Receptor-Related Protein Essential for Wingless Signalling." <u>Nature</u> . 407:527-530 (Sep 2000) |
| 110 | Willson et al., "Peroxisome Proliferator-Activated Receptor γ and Metabolic Disease." <u>An. Rev. Biochem.</u> 70:341-367 (2001) |
| 111 | Zierath et al., "Effects of Glycaemia on Glucose Transport in Isolated Skeletal Muscle from Patients with NIDDM: In Vitro Reversal of Muscular Insulin Resistance." <u>Diabetologia</u> . 37:270-277 (1994) |
| 112 | Zierath et al., "Insulin Action and Insulin Resistance in Human Skeletal Muscle." <u>Diabetologia</u> . 43:821-835 (2000) |

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